

I CLAIM:

1. A method of space shift keying modulation using a digital wireless communication system with a transmitter, receiver and an antenna array comprising the steps of transmitting different information signal bits (the "0" and "1" in the binary shift keying) from different antenna elements to the receiver; and detecting the information signal bits transmitted from different elements and numbers of transmitter antennas by the Likelihood Ratio Test.
2. The method of space shift keying of claim 1, further comprising the step of (c) employing a plurality of antenna to carry the transmitted information signals.
3. The method of space shift keying of claim 1, wherein the method is employed in the transmission using the modulation of multiple-bit or M-ary information signals.